

USAF ACADEMY WEATHER SUPPORT



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Sutherland)
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This instruction implements AFPD 15-1, *Atmospheric and Space Environmental Support*, by establishing procedures for the Academy Base Weather Station to provide weather support to the USAF Academy, including tenant organizations. It applies to all organizations located at the Air Force Academy.

SUMMARY OF REVISIONS

Alters format; deletes table of contents; changes title of flight commander to supervisor; revises tornado warning procedures; deletes requirements for customer response to weather information.

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1. What Academy Weather Does. Academy Weather provides operational weather observations and forecasts to the USAFA to support cadet and flying activities and to protect people and government resources. Academy Weather combines data from the National Weather Service National Meteorological Center (NMC) and Air Force Global Weather Central (AFGWC) with local analysis to produce forecasts for operational decision makers. The Forecast Station at Academy Weather provides weather forecasts and briefing service to Academy agencies and aircrews. The observing section provides surface weather and upper-level wind observations at the Academy Airfield. Peterson Weather has agreed to provide resource protection during the hours that Academy Weather is not open.

2. Duty Priorities. Academy Weather uses the following publicized priorities to ensure timely response to normal conditions. The duty forecaster and observer may deviate from this priority order for flight safety or to protect people and property.

- 2.1. Accomplish emergency war order (EWO) tasks.
- 2.2. Respond to aircraft or ground emergencies (emergency support to supervisor of flying (SOF) included).
- 2.3. Take and disseminate surface observations locally.
- 2.4. Disseminate weather warnings and advisories.
- 2.5. Disseminate pilot reports (PIREPS) locally.
- 2.6. Transmit surface observations and PIREPS longline.
- 2.7. Take and disseminate upper air readings obtained from the pilot balloon (PIBAL) locally and longline.
- 2.8. Prepare and issue Academy Airfield (AFF) terminal forecasts.
- 2.9. Issue alternate terminal forecasts.
- 2.10. Provide flight weather briefings.
- 2.11. Provide other briefings.

3. What Users Must Do. In order for Academy Weather to provide or arrange for weather support for all units assigned or attached to USAFA, each organization must include the weather office in plans, programs, and operations to ensure complete consideration of weather factors.

4. Individual or Organizational Responsibilities:

4.1. Supervisor of Academy Weather:

- 4.1.1. Provides or arranges for all operational weather support requirements of the USAF Academy and attached units. Provides or arranges for any guidance, information, or other weather services required by these organizations or agencies.
- 4.1.2. Informs supported commanders of any limitations to their weather support.

4.2. Offices Requiring Specific Weather Support:

- 4.2.1. Coordinate the requirement with Academy Weather.

4.2.2. Advise Academy Weather of problems involving adequacy of weather support or of any other weather support matters.

4.3. 34th Operations Group Commander:

4.3.1. Establishes operational weather support requirements and procedures with Academy Weather.

4.3.2. Notifies Academy Weather of changes in weather support requirements.

4.3.3. Involves Academy Weather in all operational planning to ensure weather support requirements are noted as early in the planning process as possible.

4.4. Operations Officers of Flying Squadrons:

4.4.1. Notify Academy Weather of changes in weather support requirements.

4.4.2. Ensure SOF pass pilot weather reports to Academy Weather.

4.5. Peterson Weather. The commander of Peterson Weather, through a separate memorandum of agreement, has agreed to provide weather resource protection to the USAFA during the hours that Academy Weather is closed and during emergency outages.

4.6. Airfield Management:

4.6.1. Ensures weather warnings and advisories are passed promptly over the secondary crash net and telephone.

4.6.2. Notifies the duty observer of active runway changes and runway conditions.

4.6.3. Notifies the duty forecaster of aircraft emergencies and mishaps via secondary crash net.

4.6.4. Publishes pertinent weather information in the flight information publication (FLIP).

5. When and What Kind of Services. Academy Weather provides forecasting services consisting of weather advisories, weather warnings, and weather briefings. Unless otherwise specified, we disseminate all advisories and warnings via the local dissemination system (LDS)/telephone. Academy Weather is open and operational, at a minimum, from 0500L-1630L, Monday through Friday. Hours may be adjusted to meet operational requirements.

6. Terminal Forecasts. Academy Weather provides a daily 12-hour terminal forecast for the Academy Airfield at least 1 hour before the beginning of airfield operations and every 6 hours thereafter until airfield closure. Forecasts and amendments are issued for the criteria listed in [Attachment 1](#). Forecasts are valid for the area within 5 nautical miles of the center of the runway complex.

7. Terminal Forecasts for Alternate Airfields. Academy Weather provides daily 12-hour terminal forecasts for alternate airfields the 557th Flying Training Squadron uses, immediately upon issuance of the USAFA terminal forecast. Alternate airfields include Peterson AFB (PEF), Buckley ANGB (BKF), Centennial Airport (APA), and Pueblo Airport (PUB), but may include others as needed. Academy Weather monitors conditions at these alternate sites during operational hours and provides forecast amendments, time permitting, for the criteria in [Attachment 1](#).

8. Flight Weather Briefings. Crosscountry and update briefings are available at Academy Weather or by telephone. Academy Weather provides verbal flight weather briefings and documents them on the Aircrew Briefing Log. DD Form 175-1, **Flight Weather Briefing**. These briefings are available (in person) at Academy Weather also.

9. Trip Forecasts for Superintendent. A trip forecast for the USAFA Superintendent will be accomplished by Academy Weather upon request. Trip forecasts will include general forecasts for the local and destination areas.

10. Other Services. Academy Weather, in addition to providing support to other Academy organizations, will provide the services listed below upon request:

10.1. Supervisor of Flying Seasonal Briefings:

10.2. Climatological Support . Academy Weather can provide limited Climatological data for USAFA. Special studies or data for other areas can be provided with sufficient lead time.

11. Resources for Forecasts:

11.1. Weather Radar. Academy Weather does have continuous access to the Pueblo WSR-88 Doppler radar.

11.2. High Wind Alert System (HWAS). The HWAS consists of two separate systems: The Doppler acoustic sounder and the remote wind sensors system. Both systems provide meteorological data to the forecaster. See [Attachment 2](#) for details of information available.

12. Weather Warnings (WW). WWs are special forecasts to advise agencies when actual or forecast conditions pose a hazard to property or life. Weather warning criteria and desired lead times appear in paragraph [15.](#) When the criterion has not been forecasted but occurs, Academy Weather issues a warning if the phenomenon is expected to continue or recur. All weather warnings specify the time period during which the threat is imminent.

12.1. Who Issues Warnings. Academy Weather issues warnings during its operating hours. Peterson Weather issues warnings at all other times. Both will specify valid times and criteria in the text of the warning. Specific warning criteria issued by Peterson Weather are in paragraph [15.](#) Only one warning may be in effect for a given location at one time and will include all applicable criteria.

12.2. Area of Coverage. Area of coverage for all weather warnings except those listed in paragraph 12.3 are valid for an area within a 6 nautical mile radius from the centerpoint of the Academy Airfield and for the USAFA.

12.3. Types of Wind Warnings. During Academy Weather duty hours, warnings for surface winds not associated with thunderstorms are issued for two separate locations:

12.3.1. Airfield. The airfield complex to include runways, operations buildings, hangars, and the control tower.

12.3.2. Academy Proper. All areas west of Stadium Boulevard, to include the cadet area, community center, housing areas, hospital, and Jacks Valley.

12.4. Weather Warning Numbers. Weather warnings use this format: XX-YYY, where XX is the month, and YYY is the warning number in consecutive order for that month (*i.e.*, WW #07-020 would be the 20th warning issued in July).

13. Disseminating Weather Warnings:

13.1. During Duty Hours. The duty forecaster issues the WW and transmits it over the LDS. Air-field Management disseminates the WW via the secondary crash net and telephone to primary organizations. Each notified unit further disseminates information and maintains its internal checklists for required actions. [Attachment 3](#) is the primary WW notification flow chart for weather warnings during duty hours.

13.2. During Nonduty Hours. The Peterson duty forecaster issues the WW and notifies the 10th Security Police Squadron (10 SPS) desk sergeant by telephone. The desk sergeant notifies required organizations. The primary WW notification flow chart for nonduty hours is in [Attachment 4](#).

13.2.1. Each unit receiving notification must maintain documented operating instructions for internal actions and dissemination.

13.2.2. Agencies which require notification must notify Academy Weather about changes to requirements. Academy Weather will coordinate desired lead times and warning criteria.

14. Tornado Procedures. Because of the extensive damage potential of tornadoes, Academy Weather follows specific procedures to provide the maximum lead time for watches and warnings.

14.1. Tornado Watch. Academy Weather issues a tornado watch whenever the potential for tornadoes exists on or near the Academy. It will be disseminated like a weather warning.

14.2. Tornado Warning. Academy Weather issues a tornado warning if funnel clouds or tornadoes are observed or if radar indicates possible tornado echoes in the immediate vicinity of the Academy. Upon issuance of a tornado warning affecting USAFA, the duty forecaster immediately calls 911 and notifies that agency to sound the Academy siren as required.

15. Warning Criteria and Desired Lead Times (DLT):

Criterion	DLT
* Tornado	10 Minutes
* Severe thunderstorms with hail greater than or equal to 3/4" and/or winds 50 knots or greater	45 Minutes
* Moderate thunderstorms with hail greater than or equal to 1/4" but less than 3/4" and/or winds 35-49 knots	45 Minutes
* Surface winds greater than or equal to 50 knots (not associated with thunderstorms)	45 Minutes
* Freezing precipitation	2 Hours
Heavy snow - 2 " or more in 12 hours or less	2 Hours

NOTES:

1. The asterisk indicates warning criteria that may be issued by Peterson Weather when Academy Weather is closed.
2. Wind speed will be forecasted to the nearest knot within each criterion.
3. Desired lead time is the amount of advance notice a supported agency desires to the onset of a particular weather phenomenon.

16. Weather Advisories (WA). WAs are special notices provided when established weather conditions that could affect a supported customer's operations are occurring or are expected to occur. Weather advisory criteria and the desired lead times are listed in paragraph 20.. Each advisory is a separate and specific notice, but more than one WA may be in effect at the same time. Academy Weather issues two types of advisories:

16.1. Observer Weather Advisories. Observed WAs are issued by the duty observer when the condition is actually observed. These advisories are canceled when the condition has not occurred within the past 15 minutes.

16.2. Forecast Weather Advisories. Forecast WAs are issued by the duty forecaster and (except for advisories for low-level wind shear (LLWS) or lightning within 3 nautical miles) will normally be issued before the onset of the condition.

17. Where and When Advisories are Valid. Weather advisories are issued by Academy Weather during their operating hours and, except for advisories for thunderstorms within 15 nautical miles of the USAFA complex (TSTMS W/I 15), are valid only during operational hours of the airfield. TSTMS W/I 15 is the only advisory Peterson Weather issues for us when Academy Weather is closed; it is disseminated in the same manner as weather warnings during hours that Academy Weather is closed.

17.1. Unless otherwise specified, weather advisories are valid only for the airfield or, for flight advisories, the local flying areas.

18. Numbering Advisories:

18.1. Observer Weather Advisories. Observer WAs are numbered in the following format: XX-YYY, where XX is the month, and YYY is the observed advisory number for that month (*i.e.*, observed advisory 02-122 would be the 122d advisory issued in February).

18.2. Forecast Weather Advisories. Forecast WAs are numbered in the following format: XX-YYY, where XX is the month, and YYY is the forecast advisory number for that month (*i.e.*, Forecast Advisory 07-020 would be the 20th advisory issued in July).

19. Disseminating Advisories:

19.1. Observer Advisories. The duty observer transmits weather advisories and cancellations over the LDS when the condition is observed.

19.2. Forecast Advisories. The duty forecaster issues the WA and transmits it over the LDS. Airfield Management disseminates the WA via the secondary crash net and telephone to primary organi-

zations. Each notified unit further disseminates information and maintains its internal checklists for required actions. The primary weather advisory notification flow charts are at attachments 5 and 6.

19.2.1. Peterson Weather issues forecast weather advisories for TSTMS W/I 15 when Academy Weather is closed. This advisory will be phoned to the 10th SPS desk sergeant for further dissemination.

20. Advisory Criteria and Desired Lead Times (DLT):

20.1. Forecast Weather Advisories and Lead Times are These:

Criterion	DLT
Surface winds 25-34 knots	30 Minutes
Turbulence--moderate or greater SFC-15,000 ft MSL	1 Hour
Icing-any intensity SFC-15,000 ft MSL	1 Hour
Thunderstorms within 15 NM (lightning implied)	30 Minutes
Low-level wind shear	Observed
Lightning within 3 NM	Observed

20.2. Observer Weather Advisories Are: Criterion

Equivalent wind chill temp 0o F or lower.

Equivalent wind chill temp -20o F or lower.

Crosswinds greater than 15 knots and greater than 25 knots.

Surface winds greater than or equal to 25 knots.

Surface winds greater than or equal to 40 knots.

Density altitude greater than or equal to 8,500 feet.

Density altitude greater than or equal to 10,000 feet.

Presence of a rotor cloud and location.

NOTE:

The asterisk indicates advisory criteria that may be issued by Peterson Weather when Academy Weather is closed.

21. Observing Services Academy Weather Providers. These consist of surface observations, upper air wind observations, and weather advisories. Observer-issued advisories are “as observed” advisories only.

22. Basic Weather Watch. Observers conduct a basic weather watch (BWW) from Academy Weather. In addition to taking scheduled observations, the observer rechecks the weather conditions at least every 20 minutes for changing conditions and takes special observations and local observations (See criteria in [Attachment 7](#)).

22.1. Wind Chill. All observations transmitted locally when the air temperature is 32 degrees F or below will have the equivalent chill temperature appended to them.

23. Upper Air Observations. The duty observer normally takes one PIBAL reading daily (by 0800L), weather permitting, to measure upper air winds. Additional PIBAL readings may be provided upon request. Transmitted information consists of wind speed and direction for the following levels:

23.1. Surface (direction in magnetic degrees).

23.2. Five hundred feet through 3,000 feet above ground level (AGL) at 500 feet intervals (direction, true degrees).

23.3. Four thousand feet through 17,000 feet AGL at 1,000 feet intervals (direction, true degrees).

23.4. Seven hundred, 500, and 400 millibar levels (direction, true degrees). Applicable remarks will follow the last wind reading.

24. Observation Site Limitations. The observing site is located just west of building 9206. The mountain range to the west restricts visibility to the west to about 5 miles, to the northwest to about 15 miles, and to the southwest to about 30 miles. Buildings to the northeast through southeast of the observation site restrict visibility in that direction. The airfield has only one cloud height sensor, located near the south end of the primary runway. The weather station has no runway visual range (RVR) equipment.

25. Disseminating Observations. The observer transmits all observations over the LDS and the hourly and special observations over the automated weather network.

26. PIREPS. PIREPS are one of the few ways of obtaining weather information in sparse reporting areas. The weather information may be of operational significance to other aircraft, including weather elements forecast but not observed, e.g., clear air turbulence (CAT). In addition, flight-level winds and temperature obtained via PIREPS aid AFGWC in verifying its winds-aloft prognosis chart.

27. PIREPS Must Follow the *DoD Flight Information Handbook* and Include as a Minimum the Following Information:

27.1. Thunderstorms/lightning.

27.2. Turbulence/icing.

27.3. Wind shear if less than 5 statute miles.

28. USAFA Aircrews. USAFA aircrews, time permitting, pass weather information, to include time observed, aircraft type, location, altitude, and significant weather, to the SOF, tower, or drop zone control officer. The SOF, tower, or drop zone control officer relays these PIREPs to Academy Weather as time allows.

29. Academy Weather. Academy Weather transmits significant pilot weather reports locally. All PIREPs containing the criteria listed below will be disseminated as SEVERE PIREPs. Actual dissemination format appears in [Attachment 8](#).

29.1. Tornadoes or funnel clouds.

- 29.2. Severe or extreme turbulence.
- 29.3. Severe icing.
- 29.4. Mountain wave turbulence.
- 29.5. Hail.
- 29.6. Thunderstorms.
 - 29.6.1. Along a line with little or no space between individual clouds.
 - 29.6.2. Embedded in cloud layers or concealed by haze.
- 29.7. Squall lines.
- 29.8. Low-level wind shear.
- 29.9. Widespread sand or duststorm.

30. Maintaining Communications Equipment. The 10th Communications Squadron (10 CS) provides maintenance for the assigned weather equipment, including weather sensing and weather communications devices. 10 CS arranges for maintenance (either by Peterson Communication Squadron or contract) for those end-items which cannot be supported locally.

30.1. 10 CS Uses a Maintenance Priority System According to the Following Codes:

- 30.1.1. Priority 1 - Immediate.
- 30.1.2. Priority 2 - Within 24 hours or the next duty day.
- 30.1.3. Priority 3 - Next scheduled trip to that facility.

31. Restoral Priority for Outages. Through agreements, Peterson AFB Communication Squadron maintains the following equipment and restores to operation in the following order:

Equipment	Restoral Code
FMQ-13 base wind system (USAFA)	2 (1 if both out)
GMQ-20 base wind system (USAFA)	2 (1 if both out)
ML-658/GM DBASI altimeter (USAFA)	2
GMQ-34 ceilometer (USAFA)	2
FMQ-8 temperature/dewpoint (USAFA)	2
ML-102 aneroid barometer (USAFA)	2
TMQ-15 wind system (CMAFB)	2
GMQ-20 soaring wind system (USAFA)	2
FMQ-13 soaring wind system (USAFA)	2
FMQ-13 parachute wind system (USAFA)	2
FMQ-13 Bullseye wind system (Bullseye)	2
ML-563 barograph (USAFA)	3
ML-17 rain gauge (USAFA)	3

31.1. Requesting Restoral. Report outages on equipment maintained by Peterson Communication Squadron to its job control through Academy Weather. Include the type of equipment, location, and problem in the report. Job control notifies weather maintenance personnel.

32. Local Dissemination System. The Automated Weather Distribution System (AWDS) is the system currently used for local dissemination of weather information. Format examples of weather information are in attachment 8.

32.1. The AWDS is maintained by an Air Force-wide contract. Report outages to Academy Weather.

32.2. Academy Weather will pass the weather information by telephone when using agencies notify it that an AWDS terminal is not operational.

33. Weather Support From Air Traffic Control (ATC). The Chief, ATC Operations:

33.1. Ensures controllers pass PIREPs to the duty forecaster or observer.

33.2. Ensures controllers participate in the cooperative weather watch program, notifying the duty forecaster or observer of the occurrence of weather phenomena not specified in the surface observation.

33.3. Ensures new weather personnel receive a tower orientation.

33.4. Allows space in the control tower (building 9212) for an alternate observing and forecasting site, if the weather station is evacuated.

33.5. Ensures controllers receive required weather training within 60 days of arrival on station.

JOHN D. HOPPER, JR., Brig Gen, USAF
Commander, 34th Training Wing

Attachment 1

TERMINAL FORECAST SPECIFICATION AND AMENDMENT CRITERIA

A1.1. General. A 12-hour terminal forecast is issued for USAFA at least 1 hour before the start of air-field operations and every 6 hours thereafter. The forecasts apply to an area within 5 nautical miles of the center of the runway complex. The forecast will specify the time of occurrence to the nearest hour, the duration, and the intensity, where applicable, for the following weather elements:

A1.1.1. Ceiling or visibility increased to equal or exceed, or decreased to less than any of the following values:

Ceiling	Visibility
3,000 feet	5 miles
2,500 feet	3 miles
2,000 feet	
1,500 feet	
1,300 feet	

A1.1.2. Wind:

A1.1.2.1. Speed changes of 10 knots or more.

A1.1.2.2. Direction changes of 30 degrees or more when the predominant wind speed or gusts are expected to be in excess of 15 knots.

A1.1.3. Precipitation (beginning/ending) that causes visibility to increase to equal or exceed, or decrease to less than 3 statute miles.

A1.1.4. Locally established warning and advisory criteria.

A1.1.5. Icing/turbulence from the surface to 15,000 feet mean sea level (9,000 feet AGL), not associated with thunderstorms. Turbulence severity will be based on category I aircraft.

A1.1.6. Lowest altimeter setting expected for the initial forecast period and any change group thereafter, excluding intermittent conditions.

A1.2. Forecast Amendments. Amendments are unscheduled forecasts which revise the content of the current forecast. Amendments will be issued to cover the remaining period of the initial forecast. Forecasts will be amended whenever an unforecast change of the criteria below is expected to occur, or occurs and is expected to last at least 30 minutes and is not correctly forecast by the next cardinal hour. Amendments will also be issued whenever a forecast change of any of the criteria listed below does not occur by the hour specified in the forecast and is not expected to occur with the next 30 minutes. In addition, the forecaster amends a forecast anytime the forecaster believes it does not represent actual or expected conditions. Amendment categories/criteria are:

A1.2.1. Ceiling/visibility criteria is 1,500 feet/3 miles.

A1.2.2. A forecast wind speed error of 10 knots or more or a direction error of 30 degrees or more when the predominant wind speed or gust is, or is forecast to be, in excess of 15 knots.

A1.2.3. Precipitation:

A1.2.3.1. The beginning or ending of freezing precipitation not specified in the forecast.

A1.2.3.2. The beginning or ending of precipitation that causes a WW to be issued, canceled, or amended.

A1.2.4. When locally established airfield warning criteria:

A1.2.4.1. Occur, or are expected to occur during the forecast period but were not specified in the forecast.

A1.2.4.2. Were specified in the forecast but are no longer occurring or expected to occur during the forecast period.

A1.2.5. The actual altimeter setting falls, or is expected to fall, more than 0.05 inches lower than the lowest forecast for that period.

A1.2.6. The beginning or ending of moderate or greater turbulence/icing, below 15,000 feet MSL, that was not specified in the forecast.

A1.3. Dissemination:

A1.3.1. USAFA forecasts and all amendments will be sent over the local dissemination system to receiving agencies.

A1.3.1.1. X557 FTS, SOF tower, building 9207.

A1.3.1.2. Control tower, building 9212.

A1.3.1.3. X94 FTS, Soaring RSU.

A1.3.1.4. X98 FTS, Parachuting Drop Zone Supervisory Unit (DZSU).

A1.3.1.5. X98 FTS, Command Building, building 9201.

A1.3.1.6. X94 FTS, Command Building, building 9211.

A1.3.1.7. Aero Club.

Attachment 2

HIGH WIND ALERT SYSTEM (HWAS)

A2.1. Situation. The HWAS, consisting of the Doppler acoustic sounder and the remote wind system, provides weather information to Academy Weather.

A2.1.1. The Doppler acoustic sounder provides surface to 1,000-meter AGL wind directions and speeds at 60-meter intervals. This data is updated at least every 30 minutes. The sounder also provides an estimate of the vertical velocity at each level.

A2.1.2. The remote wind system consists of eight wind sensors located throughout USAFA grounds. Wind speed and direction from each of these sensors are relayed to Academy Weather for the forecaster's use. The names, numbers, and approximate locations are as follows:

A2.1.2.1. Command Post (#2), located on roof of Vandenburg Hall above Command Post.

A2.1.2.2. Community Center (#3), located on the knoll just to the west of the base exchange area.

A2.1.2.3. Airfield (#4), located next to the parachuting wind sensor, on the north side.

A2.1.2.4. South ridge (#5), located south of the base stables, on the southernmost ridge of USAFA property.

A2.1.2.5. Stables (#6), located just southwest of the USAFA stables.

A2.1.2.6. Aardvark (#7), located north of the North Gate and east of Jacks Valley.

A2.1.2.7. Rampart (#8), located at the top of the Rampart Range, west of the USAFA Hospital.

A2.1.2.8. Stadium (#9), located on the ridge just west of Falcon Stadium.

A2.2. Procedures:

A2.2.1. The duty forecaster uses information from the Doppler acoustic sounder to aid in determining low-level wind shear, turbulence, wind speed, and wind directions.

A2.2.2. Academy Weather provides the following information from the remote wind system to the 557 FTS SOF, 94 FTS SOF, and 98 FTS drop zone control officer (DZCO):

A2.2.2.1. Winds exceeding 25 knots at any sensor except #8.

A2.2.2.2. Winds exceeding 30 knots at any sensor except #8.

A2.3. Dissemination:

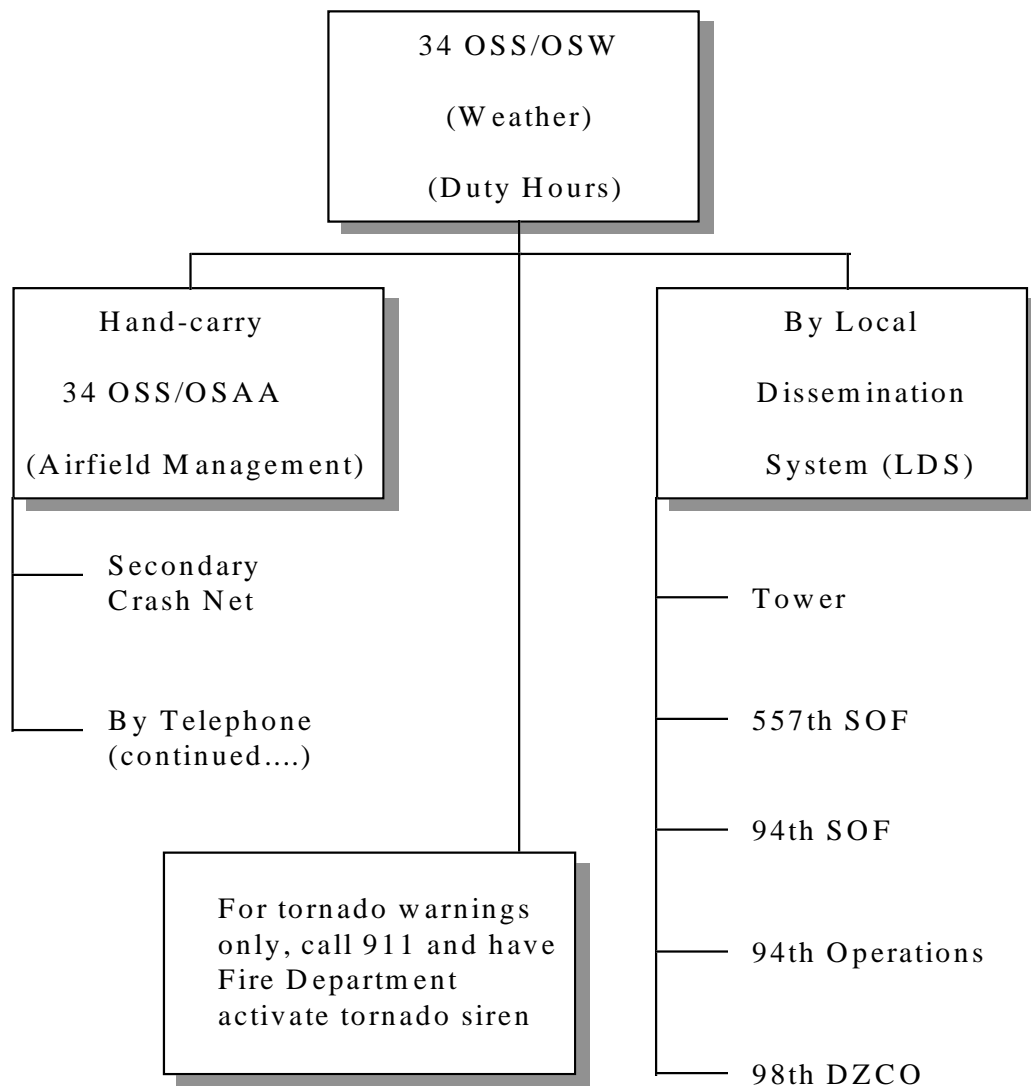
A2.3.1. Whenever the criteria in paragraph A2.2.2. are met, the duty forecaster calls the SOFs and DZCO by hotline and provides the sensor name, wind speed, and direction. This information will be provided only during hours the airfield is open.

A2.3.2. The SOFs and DZCO must provide their initials upon receipt of the information.

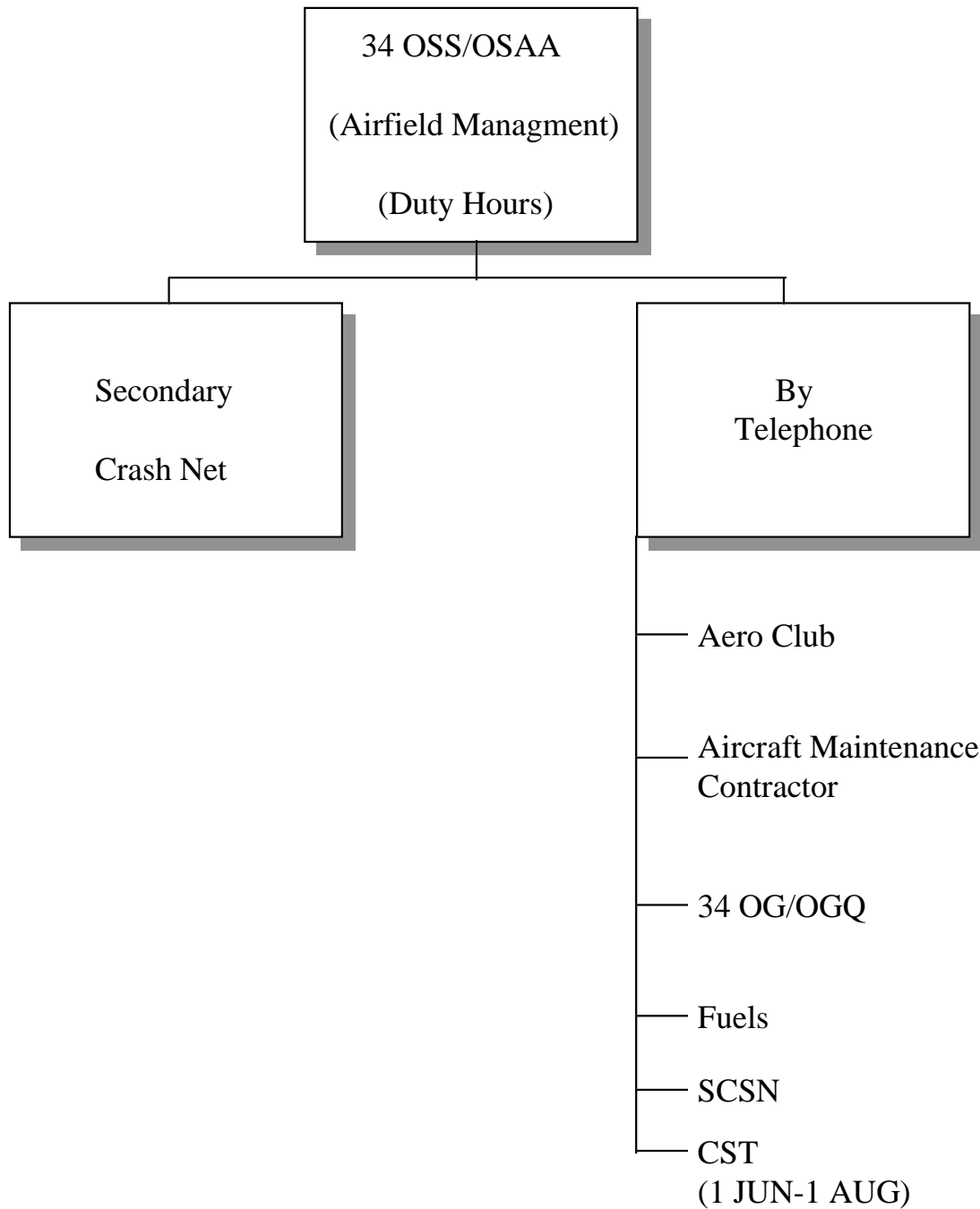
Attachment 3

PRIMARY WEATHER WARNING NOTIFICATION FLOW CHART (DURING DUTY HOURS)

Primary Weather Warning
Notification Flow Chart



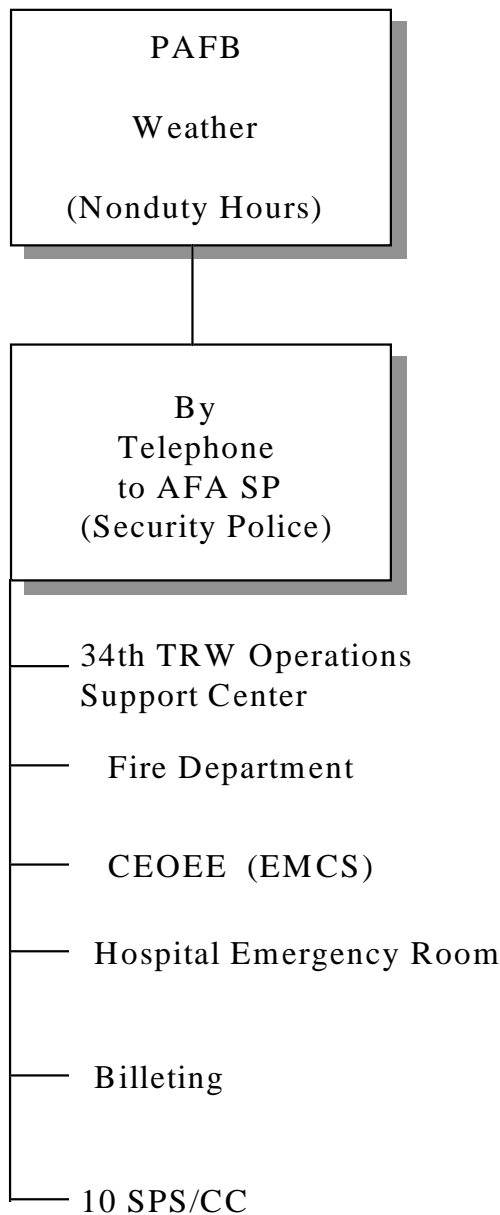
Primary Weather Warning Notification Flow Chart



Attachment 4

PRIMARY WEATHER WARNING NOTIFICATION FLOW CHART (DURING NONDUTY HOURS)

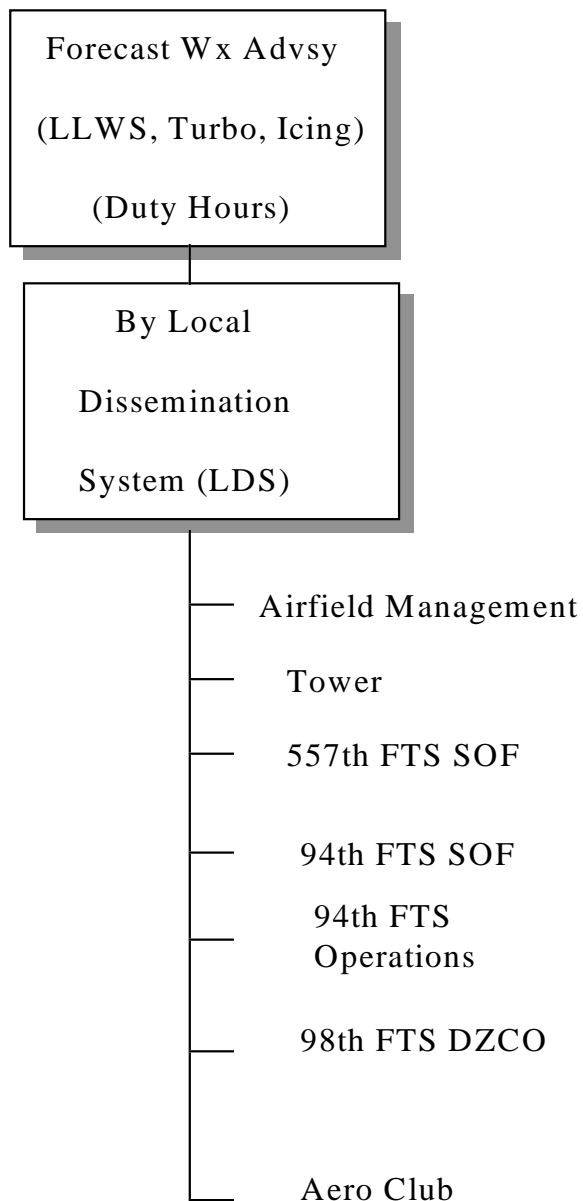
**Primary Weather Warning
Notification Flow Chart**



Attachment 5

PRIMARY WEATHER ADVISORY NOTIFICATION FLOW CHART (LLWS, TURBO, ICING)

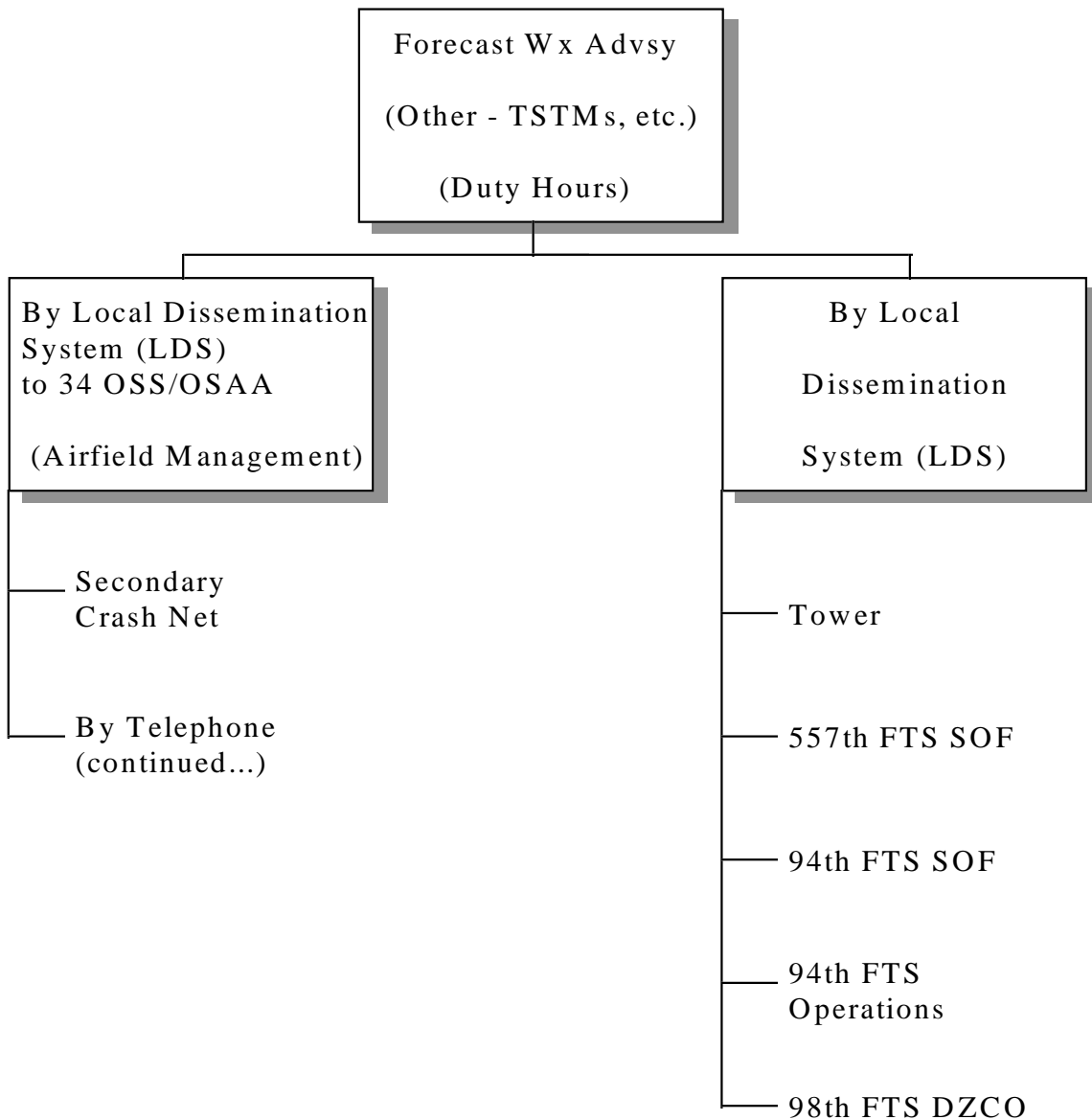
**Primary Weather Advisory
Notification Flow Chart**



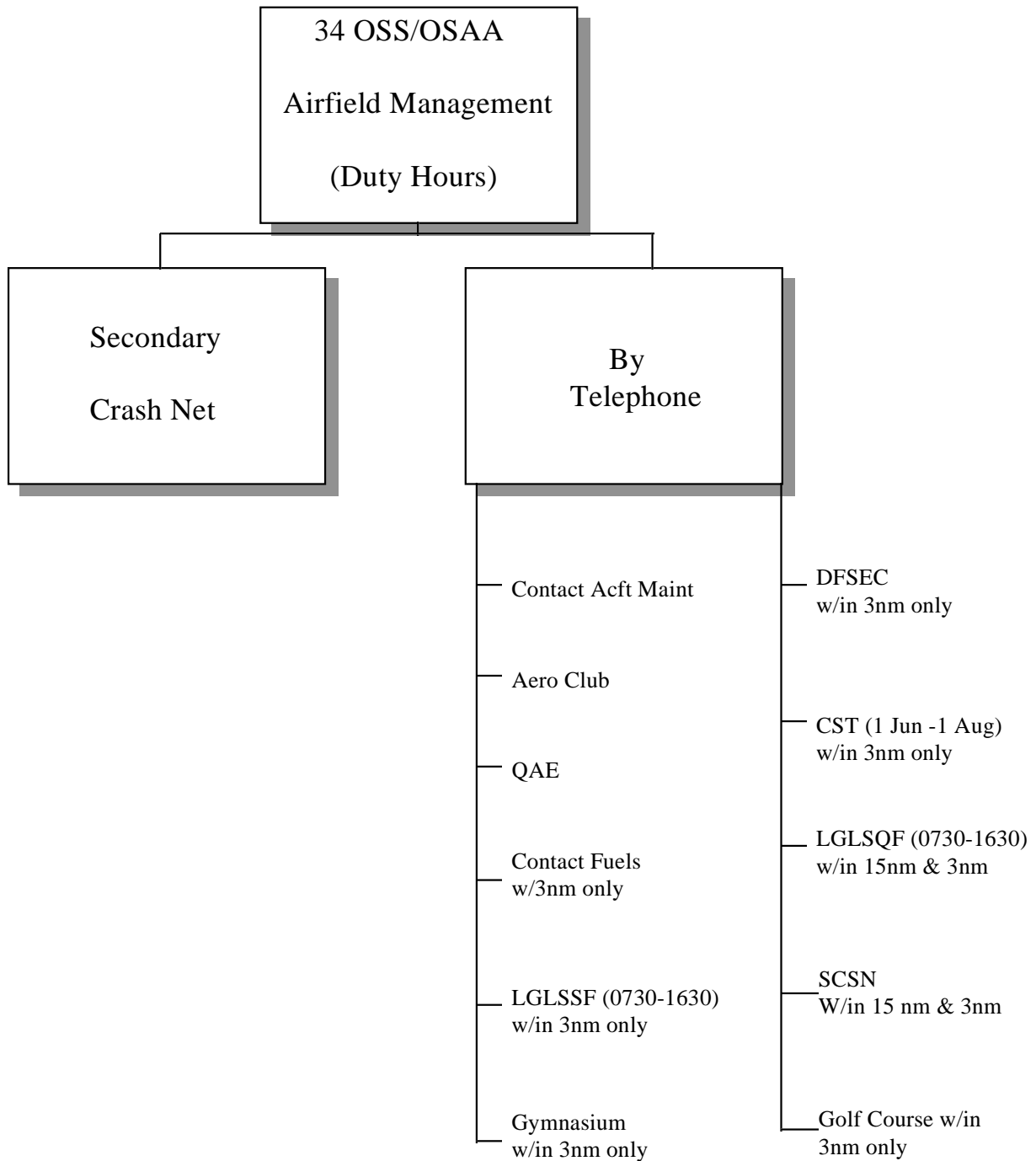
Attachment 6

PRIMARY WEATHER ADVISORY NOTIFICATION FLOW CHART (OTHER - TSTMS,
ETC.)

Primary Weather Advisory Notification Flow Chart



Primary Weather Advisory Notification Flow Chart



Attachment 7

SPECIAL OBSERVATION CRITERIA

A7.1. Special Criteria:

A7.1.1. Take a special (SP) when any of the following criteria are met:

A7.1.1.1. Ceiling decreases to less than, or increases to equal or exceed:

A7.1.1.2. 13,000 feet.

A7.1.1.3. 1,500 feet.

A7.1.1.4. 1,300 feet.

A7.1.1.5. 1,000 feet.

A7.1.1.6. 700 feet.

A7.1.1.7. 500 feet.

A7.1.2. Visibility decreases to less than, or increases to equal or exceed:

A7.1.2.1. 3 miles.

A7.1.2.2. 2 1/2 miles.

A7.1.2.3. 2 miles.

A7.1.2.4. 1 mile.

A7.1.3. Tornado or funnel cloud is observed, disappears from sight, or occurred within the past hour, according to an outside source, but was not observed or recorded at Academy Weather.

A7.1.4. Thunderstorms begin, increase in intensity, or end.

A7.1.5. Precipitation begins or ends; hail begins or ends; freezing precipitation begins, ends or changes in intensity; ice pellets begin, end, or change intensity.

A7.1.6. Winds:

A7.1.6.1. The average 2-minute wind speed suddenly increases to twice or more than the currently reported average wind and exceeds 25 knots.

A7.1.6.2. Any wind change of 45 degrees or more in less than 15 minutes when the wind speed is 10 knots or more.

A7.1.7. Take a special observation upon resumption of observing services within 15 minutes after returning to duty.

A7.1.8. Take a special observation for any meteorological situation which, in the opinion of the observer, is critical to aircraft safety or other local operations.

A7.1.9. Record and disseminate a special observation when runway condition report (RCR) is first reported or changes. Note: Not for notification of a dry RCR.

A7.2. Local Criteria. Take a local (L) observation for any of the following criteria:

A7.2.1. Altimeter setting (ALSTG) at a frequency not to exceed 35 minutes since the last observation when there has been a change of .01 inches.

A7.2.2. Ceiling decreases to less than, or increases to equal or exceed:

A7.2.2.1. x2,500 feet AGL.

A7.2.2.2. x2,000 feet AGL.

A7.2.3. Visibility decreases to less than, or increases to equal or exceed 5 statute miles.

A7.2.4. Following notification from Airfield Management of a runway change.

A7.2.5. Notification of aircraft mishap.

A7.2.6. Any other meteorological situation which, in the opinion of the observer, is significant to local operations.

Attachment 8

LOCAL DISSEMINATION FORMATS

Use modified meter code on the local dissemination system. Examples of commonly disseminated information are listed below:

A8.1. Surface Observations: nn=type of observation, HHMM=Zulu time:

AFF, nn, HHMM, sky condition, visibility, temperature/dewpoint, wind direction/speed, ALSTGnn.nn, remarks, minutes past the hour/observers initials.

i.e. AFF SA/RS/SP 2055 120 SCT 250 SCT 15 68/30 1810 ALSTG 30.20 VIRGA
W-N(DA+8700)PA+6320 55/KR

AFF, nn, HHMM, ALSTG, remarks

i.e. AFF L 2027 ALSTG, remarks

A8.2. Forecast:

KAFF FCST, HH-HH, wind direction/speed, visibility, sky condition, icing, turbc, ALSTGnn.nnINS, CIG layer, remarks.

BECMG/TEMPO HH-HH, wind direction/speed, visibility, sky condition, icing, turbc, ALSTGnn.nnINS, CIG layer, remarks, issued time/forecasters initials:

i.e. KAFF FCST 13-01 35015G20KT 7 SCT035 BKN070 BKN200 LGT MIX ICG 040-080 LGT
TURBC SFC-080 ALSTG2955INS CIG070 WND 310V040 VC-SHSN ICG IN CLOUD
TEMPO 13-16 2-SHSNBR BKN020 OVC070 LGT RIME ICG 020-080
CIGNO WND 320V060

A8.3. Alternate Warnings: Same as KAFF Forecast illustrated above in A8.2.

A8.4. Weather Warnings:

WEATHER WARNING, VALID NUMBER

VALID DD/HHMMZ (DD/HHMML) TO DD/HHMMZ(DD/HHMML)

TEXT OF WARNING, ISSUED TIME/FORECASTERS INITIALS

i.e. WEATHER WARNING 01-025

VALID 06/1500Z (O6/0800L) TO 06/1900Z (06/1200L)

SFC WNDS W-N 20G40KT FOR USAFA PROPER ONLY. 30/KR

i.e. WEATHER WARNING 07-123

VALID 13/2000Z (13/1400L) TO 14/0000Z (13/1800L)

SVR TSTMS WITH 1 INCH HAIL AND SFC WNDS VRBL 30G55KT FOR USAFA

AIRFIELD AND PROPER THIS WARNING UPGRADES AND REPLACES WRNG NUMBER
07-122. 30/KR

A8.5. Forecast Weather Advisory:

FORECAST WEATHER ADVISORY, VALID NUMBER

VALID DD/HHMMZ (DD/HHMML) TO DD/HHMMZ (DD/HHMML)

TEXT OF ADVISORY, ISSUED TIME/FORECASTERS INITIALS

i.e. FORECAST WEATHER ADVISORY 01-020

VALID 10/300Z (10/0600L) TO 10/2300Z (10/1600L)

MDT TURBC SFC-080 AGL. 00/KR

i.e. FORECAST WEATHER ADVISORY 04-035

VALID 17/1800Z (17/1200L) TO 18/0200Z (17/200L)

THUNDERSTORMS WITHIN 10NM OF AFF. 15/KR

A8.6. Observed Weather Advisory (UFN=UNTIL FURTHER NOTICE):

OBSERVED WEATHER ADVISORY, VALID NUMBER

VALID DD/HHMMZ (DD/HHMML) TO UFN

TEXT OF ADVISORY, ISSUED TIME/OBSERVERS INITIALS

i.e. OBSERVED WEATHER ADVISORY 03-065

VALID 23/1935Z (23/1235L) TO UFN

X WND > 15KTS

(WND 27015G22KT)

(WND 24V310)

(X WND COMP 22KTS)

35/KR

i.e. OBSERVED WEATHER ADVISORY 09-045

VALID 07/1330z (070730L) TO UFN

ECT < OR=TO -20 DEGREES

(ECT= -27 DEGREES)

30/KR

A8.7. PIREPS:

KAFF PIREP TIME HHMMZ, LOCATION, FLIGHT LEVEL (FL), TYPE AIRCRAFT (TP), HAZ-
ARD/WEATHER, ADDITIONAL REMARKS (RM)

i.e. KAFF PIREP TIME 1532 COS 270009 FL 085 TP T3 TURB MDT RM IN PATTERN AND LGT
ABV 092

i.e. KAFF PIREP TIME 1846 COS 270009 FL066 TP TG7A LLWS +15KTS ON FAP RWY 16